



DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1966

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

EIGHTY-NINTH CONGRESS

FIRST SESSION

ON

H.R. 6767

MAKING APPROPRIATIONS FOR THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING JUNE 30, 1966, AND FOR OTHER PURPOSES

PART 2

(PAGES 1009 TO END)

(MONDAY, MARCH 1, 1965, THROUGH WEDNESDAY, MARCH 10, 1965)

Printed for the use of the Committee on Appropriations





SMITHSONIAN INSTITUTION

STATEMENTS OF S. DILLON RIPLEY, SECRETARY; JAMES BRADLEY, ASSISTANT SECRETARY; T. DALE STEWART, ACTING ASSISTANT SECRETARY: AND MARIA M. HOEMANN, BUDGET OFFICER

SALARIES AND EXPENSES—JUSTIFICATION

Senator Young. Dr. Ripley.

Mr. Ripley. Good morning, Senator Young.

May I introduce Mr. Bradley, Assistant Secretary for Administration, and Dr. Stewart, Assistant Secretary for Science.

Senator Young. At this point in the record I will insert informational statements which accompanied your justification material. (The statements referred to follow:)

EXHIBITS PROGRAM, MUSEUM OF HISTORY AND TECHNOLOGY, FISCAL YEARS 1965 Тнкоисн 1966

A. Halls installed and opened to the public as of June 30, 1964:

1. Flag hall.

2. First Ladies hall.

Everyday life in the American past:

17th century furnishings.

4. 18th and 19th century furnishings.

5. Historic Americans.

6. American costume.7. Light machinery (timekeeping, typewriters, phonographs, and locks).8. Tools.

9. Farm machinery.

10. Road vehicles (autos and coaches).

Railroads.
 Temporary exhibits gallery (first floor).

B. Additional halls to be installed and opened to the public by June 30, 1965: Civil engineering (bridges and tunnels).
 Watercraft.
 Philately and postal history.

4. Glass.

5. Graphic arts: Hand processes.

6. Graphic arts: Photomechanical processes.

7. Graphic arts salon.

8. & 9. History of the Armed Forces (through Civil War).

10. Ordnance, and the gunboat Philadelphia.

Special exhibits (third floor).

Additional halls to be installed and opened to the public by June 30, 1966:

1. Power machinery. 2. Physical sciences.

- 3. Medicine and dentistry.
- 4. Pharmacy.
- 5. Health.6. Petroleum.
- 7. Chemistry.
- 8. Ceramics. 9. Textiles.
- 10. Growth of the United States (first section).

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SCHEDULE OF RENOVATION OF EXHIBITS

In 1966 the Smithsonian will continue its program of revitalizing the exhibits in the U.S. National Museum. The amount required for fiscal year 1966 is \$330,000.

A. Completed and opened to the public in 1964:

Osteology hall (partial).
 Peoples of Asia and Africa hall (partial).

B. Halls to be completed and opened to the public by the end of 1965: 1. Reptiles and fishes hall.

Reptness and fishes hall.
 Physical anthropology hall.
 Construction partially completed by the end of 1965:
 Old World archeology hall.
 Economic geology hall.
 Physical geology hall.
 Great hall of Smithsonian Building.

D. During 1965, drawings will be finished for the following hall:
1. Animals of the ice age hall.

E. During 1966, contract will be awarded for:

1. Animals of the ice age hall.

Rehabilitation projects, fiscal year 1966

Arts and industries building	\$50,000
 Repairs to deteriorated plastered surfaces and painting of interior of the building Repairs to exterior masonry, including calking and pointing to 	30,000
eliminate leaks and improve exterior appearance	20,000
Silver Hill storage facility	15, 000
1. Revision and additions to electric service necessary to provide power for increased shop activity, and additional equipment for restoration of aircraft and accessories	15, 000
Belmont Study Center (Elkridge, Md.)	27, 500
 Install plumbing and filtering system, pumping system with storage tank, and repair central heating system and install partial air conditioning Repair entrance roadway 	22, 500 5, 000
Total, rehabilitation projects	92, 500

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Grants to Smithsonian Institution, fiscal year 1964

Granting agency	Title of grant	Actual amount
Department of Defense	Mammals and their ectoparasites from Iran_ Miscellaneous small grants	\$22,000 12,000
Total, Department of Defense. Department of Health, Education, and Welfare.	Chronic diseases in relation to social effi- ciency.	34, 000 10, 000
National Aeronautics and Space 'Administra- tion.	Study of meteorites	222,000
HOI.	Purchase of tektite collection Prairie network Satellite tracking program. Miscellaneons small grants	28, 000 150, 000 4, 000, 000 31, 000
Total, National Aeronautics and Space Administration.		4, 431, 000
National Science Foundation	Science Information Exchange Polychaetous annelids of New England The phanerogams of Colombia Revision of scarab beetles of the genns Attentius, Upper cretaceous inoceraminae in North America and Western Europe, Recording of data for specimens collected during the U.S. Atlantic program, Environment of permo-Triassic reptiles of the order therapsida in South Africa. Sorting of U.S. Antarctic research program biological collections. Preindustrial system of water management in arid regions. Evolution and distribution of Parmelia in eastern Asia and the Pacific region.	1, 500, 000 18, 000 52, 000 14, 000 18, 000 27, 000 16, 000 29, 000 13, 000
Total, National Science Foundation		1, 700, 000
Total grants, fiscal year 1964	***************************************	6, 175, 000

Research by Smithsonian Institution on contracts, fiscal year 1964

Agency with whom contract was made	Research field	Actual amount
Atomic Energy Commission	Plant physiology	\$15,000
Department of Defense	Astrophysics Computer techniques Zoology	105, 000 20, 000 421, 000
Total, Department of Defense		546, 000
National Aeronautics and Space Administration.	CelescopeAstrophysics	1, 400, 000 12, 000
Total, National Aeronautics and Space Administration.		1, 412, 000
Total, research contracts, fiscal year 1964.		1, 973, 000

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Grants to Smithsonian Institution, fiscal year 1965

Granting agency	Title of grant	Estimated amount
Department of Defense	Mammals and their ectoparasites from Iran Miscellaneous small grants	\$22, 500 15, 500
Total, Department of Defense		38,000
National Aeronantics and Space Administration.	Studylof meteorites Prairie network Satellite tracking program	423, 300 140, 000 3, 300, 000
Total, National Aeronautics and Space Administration.		3, 863, 300
National Science Foundation	Sorting of collections from international Indian Ocean expedition. Science Information Exchange. Recording of data for specimens collected during U.S. antarctic program.	63, 600 2, 000, 000 41, 500
	Undergraduate research participation program. Identification guidefto antarctic birds Ostracoda of the Indian Ocean Estimated miscellaneous grants	11, 200 12, 200 24, 200 110, 900
Total, National Science Foundation		2, 263, 600
Total grants, fiscal year 1965		6, 164, 900

Research by Smithsonian Institution on contracts, fiscal year 1965

Agency with whom contract was made	Research field	Estimated amount
Atomic Energy Commission Department of Defense National Aeronautics and Space Administration. Total research contracts, fiscal year 1965.	· ·	\$68,000 410,000 1,900,000

SALARIES AND EXPENSES

Senator Young. Also I will place in the record at this point the justifications for the 1966 budget estimates for "Salaries and Expenses" in the amount of \$20,865,900. This is an increase of \$5,865,000 over the amount appropriated for fiscal year 1965. (The justifications referred to follow:)

INTERIOR AND RELATED AGENCIES APPROPRIATIONS, 1966 1401

Lead-Off Tabular Statement		A mount
Appropriation Act, 1965 (adjusted)Budget estimate, 1966	\$15,	400,000
Increase, 1966	5,	465, 000
Summary of increases, 1966		
1. To provide for step increases and other personnel costs: Wage board employees increase effective in December 1963, which funds are not now provided Step increases in accordance with the Classification Act Ame ments of 1962 (76 Stat. 844), and the Salary Reform Act	nd-	\$90,000
1964 (78 Stat. 400)Pay increases required to cover the full-year cost in 1966 salary increases to general schedule employees effective July	of	150, 000
1964 (Public Law 88–426) To provide funds for decreasing rate of personnel turnover		62, 000 250, 000
Total	of	552,000
museum collections and related activities		280,000
and research programs of the National Air and Space Museum 4. For increased workload of the National Armed Forces Muse	um	75, 000
Advisory Board	=	30,000
5. Planning exhibitions and acquiring and preparing art objects prior occupying the Fine Arts and Portrait Galleries building: National Collection of Fine Arts National Portrait Gallery		
•	-	
Total	-	493, 000
A. To establish programs of national and international cooperativ	-	60, 000
research and training	_	500, 000
9. For the examination, restoration, and protection of museur objects of great scientific, historical, and intrinsic value	n 	53, 000
10. To further research in natural history (including marine biology \$862,000) and	, _ 1,	665, 000
Foundation Foundation	e 	350, 000
Total	f	015, 000
sonian buildings		413, 000
tion's major programs of research and museum operation		479, 000
Net increase, 1966	_ 5,	465, 000

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Comparative summary of the 1965 appropriation with the 1966 estimates

			Increase o	r decrease
	1965 estimate	1966 estimate	Step increases and other personnel costs (1)	Program
Museum exhibitions (including art): Museum of History and Technology Museum of Natural History National Air and Space Museum National Armed Forces Museum Advisory Board	\$1, 915, 000 1, 281, 000 298, 000 62, 000	\$2, 251, 000 1, 324, 000 384, 000 94, 000	\$56,000 43,000 11,000	(2) \$289,000 0 (3) 75,000 (4) 30,000
Fine Arts and Portrait Galleries	293, 000	817, 000	9, 000	(5) 515,000
Total, museum exhibitions (including art)	3, \$49, 000	4, 870, 000	121, 000	900, 000
Scientific research and exchange of scientific information: Astrophysical Observatory. Canal Zone Biological Area. Education and training. International Exchange Service. Museum of History and Technology. Museum of Natural History. National Air and Space Museum.	1, 227, 000 159, 000 0 114, 000 818, 000 1, 914, 000 22, 000	1, 750, 000 223, 000 500, 000 117, 000 893, 000 3, 997, 000 23, 000	30,000 4,000 0 3,000 22,000 68,000 1,000	(6) 493, 000 (7) 60, 000 (8) 500, 000 (9) 53, 000 (10) 2, 015, 000 0
Total, scientific research and exchange of scientific information	4, 254, 000	7, 503, 000	128, 000	3, 121, 000
3. Buildings Management Department: Museum of History and Technology Museum of Natural History. Smithsonian Institution Building. Arts and Industries Building All other buildings Rehabilitation of buildings	1, 919, 000 1, 957, 000 213, 000 535, 000 696, 000 31, 000	2, 143, 000 2, 208, 500 236, 000 588, 000 748, 000 92, 500	92, 000 87, 000 13, 000 28, 000 32, 000 0	132, 000 164, 500 10, 000 25, 000 20, 000 61, 500
Total, Buildings Management Department	5, 351, 000	6, 016, 000	252, 000	(11) 413, 000
4. General administration: Office of the Secretary	349, 000 1, 597, 000	441, 000 2, 035, 000	13, 000 38, 000	79, 000 400, 000
Total, General Administration	1, 946, 000	2, 476, 000	51, 000	(12) 479,000
Grand total	15, 400, 000	20, 865, 000	(1) 552,000	4, 913, 000

JUSTIFICATIONS

(1) An increase of \$552,000 is requested for "Step increases and other personnel costs."

Need for increase.—This increase would be used (1) to pay the full-year cost in 1966 of salary increases granted the general schedule employees on July 5, 1964 (Public Law 88–426) (\$62,000); (2) to pay the full-year cost of salary increases granted to wage board employees in December 1963, as determined through an analysis of all wage positions with consideration being given to representative lapse factors (\$90,000); (3) to finance the cost of reduced personnel turnover, based on experience over the past few years (\$250,000); and (4) to pay for step increases in accordance with the Classification Act Amendments of 1962 (76 Stat. 844) and the Government Employees Salary Reform Act of 1964 (78 Stat. 400) (\$150,000). The latter sum includes the portion of the fiscal year 1965 step increases to be paid in that year and the carryover cost from fiscal year 1965. The apparent cost was determined through a position-by-position study and has been reduced to real cost by offsets resulting from the fact that a percentage of the employees are separated before they receive their step increases or have been promoted to another position and to the fact that some positions have been filled at a lower step within the grade than former incumbents enjoyed.

All operations of the Smithsonian Institution have been carefully reviewed to determine whether any portion of the above amount is possible in fiscal year 1966. No savings can be effected without seriously curtailing the museum, art, and scientific programs, and the protection, operation, and maintenance of the Smith-

sonian buildings and grounds.

(2) An increase of \$280,000 will be required for the "Museum of History and Technology" so that it can progress in its traditional and forward-looking programs in research, education, selective collecting, and publication; and maintain its scholarly character and leading position among museums of the world. Preparation and installation of exhibits in the new Museum of History and Technology of the U.S. National Museum will continue in fiscal year 1966. It is expected that at least 10 additional halls will be opened to the public in that year.

Need for increase.—Additional curators are required to conduct historical re-

search related to planning and authenticating new scholarly exhibits, to administer and document the growing collections, and to supervise the museum's public services which have increased greatly since the opening of the new Museum of History and Technology building. A limited number of technicians and clerical employees are requested to support the curators in their professional work.

Travel funds are needed for trips by curators to examine collections and exhibits being offered with increasing frequency; to attend professional scientific meetings where, in addition to participating in meetings, they can consult with historians, scientists, and engineers on the selection, accession, and preservation of objects and documents to record historical developments; and to meet with historians on new programs of museum-oriented research stimulated by the new Museum of History and Technology. The accelerated museum programs and rise in shipping costs have resulted in the need for more transportation funds.

Additional funds are needed to complete exhibits in the new Museum of History and Technology, including restoration of early musical instruments, vehicles, and paintings; dismantling, repair, and refrection of early machines; contracting with specialists to research and report on historical and scientific developments; preparation of specifications of models of machines, vehicles, science demonstrations, early instruments, and special exhibition cases; fees to experts and authorities for lectures and to musicians for demonstration of restored early musical instruments in the collections; supplies and materials; exhibition bases, panels, fixtures,

models, dioramas, and exhibition objects.

Plan of work.—To employ five curators, two museum technicians, and three typists and stenographers; and to provide funds for personnel benefits; travel; transportation of things; other services; supplies and materials; and equipment.

(3) The National Air and Space Museum, which has in its custody probably the world's greatest collection of aircraft, instruments, and other objects related to aviation as well as extensive documentary collections for study purposes, requires an increase of \$75,000 for fiscal year 1966. The emphasis on space flights has greatly increased the Air Museum's responsibilities to record space history and properly preserve space-flight equipment. Architectural planning for the construction of the proposed National Air and Space Museum will be completed in 1965. Authorization for construction will be requested of the Congress during the 1st session of the 89th Congress. Fiscal year 1966 will be the critical year for the functional planning of the exhibitions, and educational and research programs which will be provided to the American public by this historic museum.

Need for increase.—The increases will be used for the National Air and Space Museum's exhibits program which includes the selection of specimens to be displayed and areas for display, determination of methods of installation and display, scheduling exhibits preparation; and developing programs of education and re-

search.

Included is a modest increase in staff and funds for travel and other services. Additional funds for supplies and equipment are needed for the added staff.

Plan of work.—To employ one Assistant Director of the National Air and Space Museum, two exhibits specialists, one curator, one clerk, and one steongrapher; and to provide funds for personnel benefits; travel; other services; supplies and

materials; and equipment. (4) The National Armed Forces Museum Advisory Board requires an increase of \$30,000 to carry out the objectives of the Board which was established by act of August 30, 1961. Currently, the Board is assisting the Board of Regents by preparing recommendations for submission to the Congress with regard to (a) acquiring lands and buildings in and near the District of Columbia for the display of military and naval collections; and (b) acquiring for the collections of the Smithsonian Institution unique military objects.

Need for increase.—Funds are needed to employ a limited additional staff who will pursue a comprehensive investigation of lands in the District of Columbia in terms of their adaptability to the reconstruction of historic military and naval

facilities and for the display of significant collections of objects that are not

appropriate for Smithsonian military exhibits on the Mall.

Additional travel funds are required for visits by staff members to numerous Armed Forces installations and agencies to discover military objects which are especially appropriate for the collections and to initiate action for acquiring such objects in advance of their deterioration or destruction. Included also are increases for further detailed site studies of lands suitable for the display of military collections and for the nucleus of a library.

Plan of work.—To employ one curator and one typist; and to provide funds for

personnel benefits; travel; other services; and equipment.

5 An increase of \$515,000 is required for the "Fine Arts and Portrait Galleries," namely the "National Collection of Fine Arts" (\$265,000) and the "National Portrait Gallery" (\$250,000) to continue the accelerated program of planning and preparing valuable works of art and portraiture for exhibition in the remodeled Fine Arts and Portrait Galleries building formerly known as the Civil Service Commission Building. Before the new gallery can be opened to the public, there must be a major refurbishing and expansion of the present Government collections and also, most critically, the supplementation of these collections of millions of dollars' worth of art gifts and loans. Because of the size of the total project as well as the time element involved, this must be regarded as a major undertaking of unprecedented importance to the Institution's responsibilities in

these fields of history and culture.

The National Collection of Fine Arts, a bureau of the Smithsonian, is the oldest gallery of art directly related to the U.S. Government. The bureau is maintained for the statutory purposes of conserving and exhibiting art belonging to the Government, the development of appreciation of American art of the past, and the encouragement of contemporary creative effort. Many notable paintings, largely by distinguished Americans, have been added to the national collections under the care of the National Collection of Fine Arts, and restoration of some of these works has been carried on. Despite many generous gifts of art by private citizens, the collections are far from presenting a broadly representative survey of American The functions of the bureau which have to do with education and encouragement of creative effort have been implemented to a very small extent, though the one activity which has been systematically developed—the traveling exhibition service—has proven most successful and valuable.

The National Portrait Gallery, established by Public Law 87-443, dated April 27, 1962, is charged with the responsibility to collect and exhibit portraiture and statuary depicting men and women who have made significant contributions to the history, development, and culture of the people of the United States from its earliest period of discovery to the present. There will be established as an essential part of the gallery a center for American iconography, biography, and

Need for increase.—The remodeling of the building for the fine arts and portrait galleries is expected to be completed in November 1966. The program of planning the exhibition and acquisition of valuable works of art, portraiture, and statuary, and of developing the playsical plant and staff to administer the expanded activities must be accelerated in fiscal year 1966. The increase would provide for the staff and materials required to record, examine, and maintain valuable works of art; purchase portraits, paintings, frames, cases, and other exhibition appurtenances; and prepare educational material and reference works. A detailed script is required for each exhibition hall to assure the most effective use of the collections. Special equipment and facilities for the analysis, study, and display of art must be acquired as soon as possible. Additional office and workroom materials are needed to establish a conservation department for the restoration and care of paintings, portraits, prints, drawings, and objects of stone, metal, and wood.

The acquisition of a representative collection of portraiture for a truly national gallery is an undertaking of major importance. The history of the development of the outstanding galleries of the world attests to the scale of effort needed to

achieve the excellence of their collections.

While active preparation for the move to the new galleries is in progress, the National Collection of Fine Arts must continue its assigned public services in connection with the exhibition of art and furnishing of information. These valuable services that have been inadequately supported in the past now require increased funds in order to perform the national service of promoting appreciation and understanding of art as authorized by the act of May 17, 1938.

Plan of work.—To provide funds for two special assistants, one historian, five curators, one conservator, one cataloger, one administrative assistant, one registrar, four museum aids, two secretaries, and four clerk-typists; personnel benefits: travel; printing and reproduction; other services; supplies and materials; and

equipment.

(6) The Astrophysical Observatory requires an increase of \$493,000 to further its unique scientific program of basic research concerned with the solar system, the stars, galaxies, and interstellar matter, and with the effects of solar and ionizing radiation in biological systems. Included is the intensification of meteoritic research, the development of balloon flight experiments in gamma ray astronomy, feasibility studies for research in radio astronomy, and the purchase of scientific equipment for the enlarged research laboratory.

Need for increase.—Research in the earth's atmosphere, the atmospheres and surfaces of other planets, the moon's gravitational potential; interstellar matter, meteoritic matter in the solar system, and mineralogical analysis are fundamental to an advance in space science and technology. The Astrophysical Observatory is also studying the theory of meteors in the earth's atmosphere, comets, and

making solar and stellar observations.

Increases in population have focused particular attention on controlling and growth and development of organisms and the role of radiant energy in these life processes.

The primary need for the increases is to expand the research currently being conducted in diversified fields and to plan the installation of these research projects in balloons and satellites. The Observatory will initiate a program of bromine determination by neutron activation in meteorites and terrestrial material, and also a comparative study of radomes to determine the possibilities of a large combined optical and microwave radio telescope. The search for sources of cosmic gamma rays will be intensified. These studies hold the promise for revealing valuable new areas of research, thus increasing knowledge in astrophysics.

Equipment capable of greater production and technological accomplishment in terms of volume, precision, and increasing complexity are needed for conducting research in radiant energy in the life processes and in the spectral quality of solar

radiation pertaining to specific biological processes.

Other increases are for the improvement of the Astrophysical Observatory's existing research in X-ray astronomy, upper atmospheric phenomena, geodesy

and celestial mechanics, and exobiology.

Plan of work.—To employ four physicists, one cytogeneticist, and one laboratory administrative officer; and to provide funds for personnel benefits; travel; rent, communications, and utilities; other services; supplies and materials; and equipment.

(7) An increase of \$60,000 is requested for the Canal Zone biological area to add two scientists and provide a dormitory for students at this front-ranking

center for tropical biology.

Need for increase.—Funds are requested to add a herpetologist (reptile specialist) and an entomologist (insect specialist) to the limited professional staff of three in order to add these disciplines to the scope of activities and permit studies of most of the major classes of animals that are common in the New World tropics. The addition of these specialists would make the Canal Zone biological area measurably more useful to scientists and students of other institutions. The anticipated increased activity at the Laboratory will result in need for two employees and related supplies and equipment to maintain and operate the facility.

Increases in travel and transportation are needed to move new employees and

their household effects to the island.

Nonrecurring funds are needed also to construct a dormitory-style building for visiting students. The Smithsonian, with the Organization of American States, is organizing a fellowship and research grant program to permit Latin American students to study and do research on the island.

Plan of work.—To employ one herpetologist, one entomologist, one clerkmessenger, and one helper; and to provide funds for additional part-time employment; personnel benefits; travel; transportation of things; other services; supplies

and materials; equipment; and lands and structures.

(8) The sum of \$500,000 is required for the Education and Training Division to establish programs of national and international cooperative research and training so that the Smithsonian Institution can more fully meet its objective "to increase and diffuse knowledge" in traditional fields where its facilities and staff can make a maximum contribution to meeting national needs. Any organization that harbors numbers of highly qualified research personnel should find ways of making them available for teaching in collaboration with nearby universities. These programs have been designed to communicate research findings and techniques to fellow workers in other museums and educational institutions and afford to them opportunities to use the research facilities of the Institution. The programs have been designed to contribute to the productivity of Smithsonian scholarship and research through the direct stimulation afforded by graduate students undertaking their own research for the first time and the intellectual discipline imposed by the need to give more frequent expression to working ideas and the objectives of study. Senior workers will provide program and management advice, and their resulting familiarity with Institution programs is expected to contribute to recruitment objectives. A limited program of conferences is planned for those areas of science and learning where direct discussion is required for their advancement.

It is proposed to enter into a contract in the amount of \$180,000 annually with the National Academy of Sciences, whose advisory panels will select 12 visiting associates (postdoctoral) to do advanced research in the biological and

physical sciences and in the history of science and engineering.

The Smithsonian Institution, a leader in the national museum community, in cooperation with the American Association of Museums, will offer two training courses in museum techniques for the staff members of other museums. The courses would involve the conservation of objects and collections, visitor reaction and learning experience, and the modernization of cataloging techniques. This program is expected to strengthen the service of museums to their respective communities.

By contract with the Organization of American States, which will provide matching funds, the Institution will offer opportunities for Latin American scientists to use the facilities of the Museum of Natural History, the Canal Zone biological area, or similar field stations in the New World tropics for advanced research into natural conditions and wild populations of plants and animals of Latin America. The Institution has traditional commitments and specialized collections in this area, but opportunities for the advancement of knowledge are not being satisfactorily met. This program of postdoctoral resident research associateships should expand Latin American manpower resources and ultimately lead toward a more satisfactory rate of progress in advancing fundamental knowledge about important biological problems, upon whose solution economic

developments often depends.

It is proposed to offer opportunities to 20 graduate students to complete research leading to the award of the Ph. D. degree by their home universities upon approval of projects executed at the Smithsonian. Each research project will be approved in advance by a Smithsonian supervisor who will extend guidance to the intern during the life of the project. The predoctoral interns will be assigned to the Museum of Natural History, Museum of History and Technology, Astrophysical Observatory, radiation and organisms, and the Canal Zone biological area. Candidates in "shortage" category fields will be given first preference, especially where their interest relates to Institution work which has not been completed for lack of suitable candidates for appointment to the staff. A thorough inventory of such opportunities has been carried out for publication as a booklet listing the principal research opportunities at the Smithsonian Institution, for wide distribution to other museums and university departments. The estimated annual cost of this program is \$153,000.

Funds will be required for the attendance of outside participants at conferences of the Smithsonian. Included are expenses of travel, subsistence, and fees for lectures and other contributions, which will be financed by consultantships and contracts with participating experts, scientists, scholars, historians, and similar

authorities.

Plan of work.—To employ 1 director, 2 assistants to the director, 1 research assistant, 20 predoctoral interns, 4 secretaries and clerks; and to provide funds for personnel benefits; travel; other services; supplies and materials; and equipment.

(9) The Museum of History and Technology requires an increase of \$53,000 for the examination, restoration, and protection of museum objects of great scientific, historical, and intrinsic value. The small conservation laboratory will be provided with technicians and equipment required to make a start on the development of a conservation program.

Need for increase.—The poor condition of large and valuable collections of museum objects was revealed by the moves of collections into the new Museum of History and Technology and into the new east wing of the Museum of Natural History. Many unique and irreplaceable objects required to be used in the new exhibits in both museums must be scientifically examined, restored, and protected

from deterioration. The urgency is great as deterioration is accelerated if not arrested.

Trained personnel are needed to examine objects and to perform research in the requirements and methods for preservation and to perform the conservation work on many thousands of objects made of paper, metal, fiber, wood, stone, leather, feathers, and plastics, and many others.

Plan of work.—To employ two chemists and one conservator; and to provide funds for personnel benefits; travel; other services; supplies and materials; and

equipment.

(10) The Museum of Natural History is the national institution for systematic biology, anthropology, and mineralogy. A total increase of \$2,015,000 is required, comprised of (a) \$803,000 to further research in natural history, (b) \$862,000 for research in marine biology, and (c) \$350,000 for scientific research formerly funded by the National Science Foundation. The research of the scientists in this museum is unique in that it is based on vast collections amounting to millions of specimens, which have resulted from fieldwork and donations and are representative of the natural history of the world.

Need for increase.—Research programs are necessary to make these national collections fully useful to all systematic biologists by comprehensive assembling of specimens, preservation in a protective repository, scientific examination and classification, and publication of the results of expeditions and studies. Taxonomic revision of scientific names and classification of specimens, new observations advancing biological theory and practice, and the promotion of interrelations of systematics with other fields of science are other significant products of this

research.

Anthropological studies, also based upon outstanding national collections, are concerned with compiling an ever more precise record of the history of man and his culture, achieving a more profound understanding of his physical nature and his way of life. Similarly, mineralogical studies are made relating to the earth itself and to those rare accretions from outer space, the meteorites. The museum has one of the world's most comprehensive collections of minerals and meteorites. Knowledge of the chemical composition, history, and distribution of minerals and rocks is essential to the Nation's economy and to its space exploration effort.

The museum is also responsible for collecting, identifying, describing, grouping, and characterizing the organisms and sediments in the ocean. More than 30 million names have been given to the seemingly infinite variety of forms of life on earth. It is the purpose of the museum's program to determine the validity of the names of organisms living in the ocean and to describe the many new species of organisms which are collected. The work of the museum is a first step in the utilization of the ocean's resources. We will collect, identify, and predict the occurrence of organisms which are sources of antibiotics, pharmaceuticals, and other substances; which cause the fouling of ships of commerce and the military; which are necessary in experiments leading to the understanding of human health; which have potential for production of food for the underfed humans in the world; and which lead to understanding the origin and evolutionary history of man.

(a) New positions are required primarily for subprofessional technicians and clerical assistants to provide supporting services for the research staff to meet increasing demands for identifications, and to provide assistance to other research workers and members of the public. The addition of the technical aids requested here will permit great improvement in manpower utilization and museum services, and result in technical training experience that may be utilized by other institutions throughout the Nation. Professional staff are needed to work in the fields of anthropology, fungi, invertebrate and vertebrate zoology, paleobotany, ecology, and the organisms of soils. In these fields, knowledge is not now being derived from the national collections to an appreciable extent. Funds are included for the management of a program of awarding grants to American universities, museums, or other institutions of higher learning interested in conducting research and excavation in archeology and related disciplines in countries where foreign currency excess conditions exist. An increase in travel funds is required commensurate with the greater scale of research programs. These funds are used by the scientific staff for field expeditions, to study important collections at other museums, and to attend and participate in national and international scientific meetings.

An amount is included for rental of ecological research privileges at Ivy Neck, Md. This area is uniquely valuable because it is adjacent to the Smithsonian's field biology station, recently acquired by a bequest to the Institution. These areas are among the few remaining relatively unspoiled areas on the west shore

of the Chesapeake Bay, and their convenience to Washington and Baltimore is expected to stimulate new studies relating the laboratory and field aspects of the study of animal behavior and plant distribution, population studies of marine and estuarine animals, and the growth of plants under varying experimental conditions.

Funds are included for a feasibility study of new methods of publishing species names to test all aspects of the automatic data processing program to determine its adaptability and efficiency in the field of natural history, including activities of systematic biologists, sorting operations of the marine biology center, and the cataloging operations. Funds are requested for the payment of fees, traveling expenses, and subsistence for visiting specialists, primarily in ecology, to advise on the early phases of research, and for other services required. Alcohol and preservatives, glassware for preserved specimens, cardboard trays and boxes, microscopes and associated illuminators, and photomicrographic apparatus, are representative of the added supplies and equipment required of the scope for programs planned.

(b) Specialized professional and subprofessional staff members are needed to provide competence in numerous fields of biology not now available to the marine biology programs and to enable the Museum to accept a part of the tremendous increase in workload arising from the national effort. Additional funds are required for travel to examine type collections in museums throughout the world and for the Museum's share of the cost of operating research vessels, chartering small vessels, and for expenses for Smithsonian scientists aboard ship. supplies and specialized equipment will be needed for the accelerated marine

biology program.

(c) Funds are also requested to offset the prospective withdrawal of supplemental financial support received from the National Science Foundation. In order to comply with the intent of the proviso in the Independent Offices Appro-Science Foundation to "any other agency of the government for research without the approval of the Bureau of the Budget," the Institution plans to discontinue submission of grant applications for such research. The intent of the proviso is understood to be that Government agencies should obtain appropriations for their research directly from their own congressional committees. It is planned to allocate the requested appropriated funds on the comparative merits of research proposals submitted by staff members. Review panels and the same standards of excellence used by the National Science Foundation will be employed in administering these funds.

Plan of work.—To employ 1 assistant director for ecology, 2 anthropologists,

2 botanists, 2 ecologists, 4 geologists, 2 paleobiologists, 4 paleobotanists, 4 plankton specialists, 1 program specialist, 7 zoologists, 5 museum specialists, 80 museum technicians, 9 administrative assistants, and 24 clerks, stenographers, and typists; and to provide for personnel benefits; travel; rent, communications, and utilities;

other services; supplies and materials; and equipment.
(11) The Buildings Management Department will require an increase of \$413,000 for the protection, maintenance, and operation of additional public

exhibition and laboratory areas in Smithsonian buildings.

Need for increase.—The increase is required because of the completion and utilization of additional building space in the Museum of History and Technology and the east and west wings of the Museum of Natural History. The increasing number of visitors to these public exhibition buildings, now exceeding 11 million annually, is another major reason for the requested increase. The additional funds will be used for assisting the exhibits staffs in assembly and installation of exhibit cases, displays, special lighting, and equipment; eleaning exhibit and installation areas; workrooms, and offices; moving, loading, and unloading; servicing and operating refrigeration, heating, temperature and humidity control systems, and related machinery, accessories, and controls; performing alterations, improvements, and repairs; refinishing and painting of offices, workrooms, and laboratories; assembling, installing, and servicing workroom and special storage equipment; guarding the buildings and national collections; and furnishing utilities and telephone services. Included is \$65,000 required as an addition to the amount now available for the opening of the museums during the evening and night hours.

Plan of work.—To employ 21 buildings management workers (guards, laborers. and mechanics); and to provide funds for personnel benefits; electricity (including air conditioning), gas, steam, and communications; contractual service for preventive maintenance, emergency repair and inspection of elevators and escalators for new facilities, and rehabilitation of buildings; purchase of supplies and materials for protection, cleaning, and custodial services, and repairs and alterations of existing offices and work areas; and purchase of equipment for mechanical

shops, and replacement of one truck.

(12) An increase of \$479,000 is requested for general administration, including \$79,000 for the Office of the Secretary and \$400,000 for the administrative service units of the Institution, in order to provide services and support for the Institution's major programs of research and museum operation.

Need for increase.—The increases requested are substantially less than the

amount that would be commensurate with the enlarged scope of the Institution's

activities.

The Office of the Secretary will require additional employees for added management activities, funds for equipment, and funds for representation expenses for the entertainment of foreign heads of state and heads of learned departments and

museums from all over the world.

Increased administrative services are necessary to publish more research volumes and more educational and informational materials; to improve library services and undertake preliminary steps for a recataloging program; to handle an increased volume of financial and procurement transactions; and to provide additional

photographic services.

In addition, the Smithsonian Museum Service will undertake the initial operation of the television studio and related facilities in the new Museum of History and Technology Building. The facilities will be used in the presentation of educational and cultural television programs. The Smithsonian plans to capitalize fully on the availability of the John F. Kennedy Center during its "dark time" by presenting educational exhibitions, lectures, closed-circuit television showings, and similar programs related to the educational work of the Smithsonian in science, history, and art.

Plan of work.—To provide for 2 technical assistants, 1 research assistant, 24 staff technicians, 2 nurses, and 13 secretarial and clerical assistants; personnel benefits; penalty mail; printing and reproduction; representation allowance; other contractual services, including contract for automatic data processing equipment; Xerox machine for catalog card reproduction; film checking equipment; office supplies, furnishings, machines, and equipment; and books.

Report of the number of permanent positions by organization unit

	1964 actual	1965 estimate	1966 estimate	Increase, 1 966 over 1965
Astrophysical Observatory	64	68	74	6
Buildings management department		716	737	21
Canal Zone biological area		18	22	4
International exchange service		11	11	0
Museum of History and Technology	241	247	257	10
Museum of Natural History	297	317	467	150
National Air and Space Museum	28	28	34	6
National Armed Forces Museum Advisory			ł	
Board	2	2	4	2
National Collection of Fine Arts		20	36	16
National Portrait Gallery	5	9	15	6
Office of the Secretary	23	29	36	7
Education and Training Division	0	0	28	28
Administrative services	109	117	152	35
Total	1,348	1, 582	1,873	291

Report of obligations by objects

	1964 actual	1965 estimate	1966 estimate	Increase or decrease (-) 1966 over 1965
Personnel compensation	\$8, 379, 000 608, 000 117, 000 113, 000 718, 000 274, 000 1, 084, 000 775, 000 1, 098, 000 1, 098, 000	\$10, 640, 000 766, 000 146, 000 95, 000 898, 000 258, 000 1, 080, 000 672, 000 984, 000	\$13, 140, 000 944, 000 284, 000 111, 000 1, 133, 000 2, 196, 500 841, 000 1, 854, 500 24, 000 1, 000	\$2,500,000 178,000 138,000 16,000 235,000 78,000 1,116,500 199,000 870,500 24,000
Total obligations Appropriation adjustments: Proposed supplemental for cost of wage board salary increases Unobligated balance lapsing	13, 167, 000	15, 540, 000 -140, 000	20, 865, 000	5, 325, 000 +140, 000
Appropriation (adjusted) or estimate	13, 191, 000	15, 400, 000	20, 865, 000	5, 465, 000

PREPARED STATEMENT

Senator Young. Dr. Ripley, would you care to file your written statement with the committee and then highlight the activities and experiences of the Smithsonian Institution in the past year, as well as indicating the program increases contemplated in the coming fiscal year?

Mr. RIPLEY. Thank you, sir.

I have a statement I would like to file for the record, and I would be happy to highlight the statement, if you care.

(The statement referred to follows:)

GENERAL STATEMENT, FISCAL YEAR 1966

The Smithsonian Institution, established by the act of August 10, 1846, is devoted to public education, basic research, and national service in science, learning, and the arts. The Institution, with its wide array of research and education facilities for both the scholar and the general public, is richly endowed with many of the resources that can create a fuller and more meaningful life for the American people.

September 1965 marks the 200th anniversary of the birth of James Smithson, the benefactor whose bequest of his fortune to the United States made possible the founding of the Smithsonian Institution. Plans are being made for a scholarly observance of this event which will dramatize the importance and further the high purposes of the Institution's original mandate, "the increase and diffusion of

knowledge among men."

To carry out this mandate, the Institution performs fundamental research, publishes the results of studies, explorations, and investigations; preserves for study and reference over 59 million valuable items of scientific, cultural, and historical interest; maintains exhibits representative of the arts, American history, aeronautics and space exploration, technology, and natural history; and participates in the international exchange of learned publications.

The requested increase in funds for scientific research is required for objectives

The requested increase in funds for scientific research is required for objectives of the utmost priority in well-established programs stemming directly from the historic purposes of the Smithsonian Institution and its place in the Nation's

system of research organizations.

In anthropology an internal reorganization has been accomplished as a prelude to a very determined effort to increase the effectiveness of the basic concepts of this science. The institutional scope and long-term continuity afforded by the Smithsonian are only the prerequisites for a successful research program. The level of effort must be increased if the potential inherent in anthropology is to be realized.

In evolutionary biology the Smithsonian has distinct national responsibilities, to maintain an adequate rate of progress in basic research in the face of a rapid withdrawal of universities from this field. The interaction between organisms and their environment is the central theme of life science. Research in universities is increasingly devoted to lower levels of integration in such phenomenacellular and molecular systems—to the neglect of whole organisms and population systems. It can be flatly stated that each year in the world as a whole more genetically distinct systems are eliminated by environmental change than are satisfactorily elucidated from the standpoint of evolution, to the serious and irreparable loss of biological science. The Smithsonian has articulated a response to this highly critical situation involving five central program objectives:

(1) Multiply the effectiveness of systematic biologists by reform in the handling of scientific information and steps to assure proper utilization of professional manpower through provision of semiprofessional assistance

(2) Multiply the effectiveness of institutions in systematics through devising new methods of sorting, handling, and indexing biological materials; (3) Multiply the rate of training in systematics through the use of museum

facilities for higher education purposes;

(4) Contribute to the development of greater interest on the part of universities and scientists in less developed countries in their native populations and wild conditions;

(5) Guarantee that such subdisciplines as genetics and ecology contribute

their utmost to the central understanding of biological organization.

While the level of effort proposed for fiscal year 1966 is not an adequate response to this situation, it must be regarded as minimal and especially necessary. ulation of increased effort must await improvements in such basic matters as

manpower, institutional capacity, and renewed interest on the part of universities.

Inadequacies in marine biology impair the effectiveness of the national research program. Our recommendations are designed to eliminate crippling disparities which, if continued for an additional year, would be a most troubling feature in the national program. Knowledge drawn from biological populations is indispensable for a proper inventory of problems in currents and circulation, contamination, and energy exchange at the synoptic level.

In astrophysics the program of the Smithsonian responds not only to the internal requirements of knowledge itself but to the pace of the Nation's space effort. The Astrophysical Observatory is an indispensable element in maintaining the balance of that effort. The rewards from research in these fertile fields more than

justify the investment adjudged suitable for the fiscal year 1966.

The scientific objectives of the Smithsonian are fully responsive to the principles of the Bell report and have been chosen with reference to the greatest "relative effectiveness and efficiency." The Smithsonian constantly strives to make optimal our national system of research institutions, directing its efforts at established deficiencies with due regard to the strengthening of institutional resources. Within the Federal laboratories, with the cognizance of the Civil Service Commission and the Federal Council for Science and Technology, the Smithsonian has begun determined efforts to meet its responsibility for pointing to new directions which enhance the overall effectiveness of our system of laboratories; specifically, in the development of a clearinghouse for information about higher education activities to promote cooperative research with universities, and study of tenure, appointments, and professional development.

The Smithsonian Institution is highly conscious of its nationwide responsibilities and believes that appropriate support for its fiscal year 1966 request in scientific research will yield significant and lasting benefits to the Government.

Sharply accelerated activity must take place in the art fields since it is estimated that the remodeling of the Fine Arts and Portrait Galleries Building will be completed in November 1966. Expansion of staff, services, facilities, and exhibition materials must be developed in order that the Smithsonian will have firm ground on which to launch a major campaign for contributions of works of art. Despite many generous gifts by private citizens, the collections are far from representing a broad survey of American art. Millions of dollars' worth of art, either as gifts or loans, must be solicited to supplement the present collections before the new galleries can be opened to the public.

The Institution is responsible for the operation and maintenance of seven main exhibition buildings: namely, the Museum of History and Technology, the Museum of Natural History, the Arts and Industries Building, the Smithsonian Building, the National Air and Space Museum, the Fine Arts and Portrait Galleries Building, and the Freer Gallery of Art.

· Public interest in museums and art galleries is at an unprecedented high level. The newly opened Museum of History and Technology had its 5-millionth visitor only 10 months after its dedication. Our total attendance, including that of the National Zoological Park, exceeded 14 million visitors in 1964. The evening visiting hours during the spring and summer months provided many hours of enjoyment and education for both tourists and Washingtonians.

The 1966 estimates of appropriation are predicated on carrying out the au-

thorized purposes of the Institution at a level of investment commensurate with the national need for scientific, cultural, and historical knowledge. It is urgently requested, therefore, that funds be provided for the Smithsonian's programs in

the amounts justified.

Under the "Salaries and expenses appropriation," funds in the amount of

\$20,865,000, an increase of \$5,465,000, are requested:

To maintain the existing establishment and programs for the increase and dissemination of knowledge; To provide professional, administrative, and custodial staff for new labora-

tories, museums, and art galleries;

To increase knowledge through cooperative research, scholarly conferences. and training programs;

To increase our attainments in scientific research; and

To increase our efforts in historical research and art education.

Provision has also been made in the 1966 estimates of appropriation for: "Archeological research and excavation" (special foreign currency program), \$1,300,000: For a program of grants for archeological exploration, excavation, and research to be financed with such foreign currencies as the Treasury Department has determined to be excess to the normal requirements of the United States. At the moment of writing, the excess currency countries are India, Pakistan, Israel, Egypt, Poland, Yugoslavia, Burma, and Brazil.

Construction:

To continue the program of constructing, remodeling, and equipping buildings and outdoor exhibition facilities at the National Zoological Park, \$1,539,000.

Restoration and renovation of buildings, \$2,248,000:

To improve the Smithsonian Institution Building for public exhibition, professional, and administrative uses by renovating a portion of the third floor, adding a partial fourth floor, installing an elevator, and air conditioning the building; and

To improve for laboratory and administrative uses a portion of an industrial Naval Weapons Plant now occupied by Smithsonian's building at the

Marine Biology Center.

HISTORY AND TECHNOLOGY BUILDING

Mr. Ripley. This past year has seen a number of events take place which require support and increases for next year. Particularly Congress has been very helpful and favorable to us in our program of new buildings.

The History and Technology Building, as you know, which was opened last January, has already had 5 million visitors in 10 months

of operation.

Senator Young. That is the new one on Constitution Avenue?

Mr. Ripley. Yes.

The total attendance for the whole building for a year has been over 5 million, actually 5 million just in 10 months.

Senator Young. That is amazing.

Mr. Ripley. It has been an extraordinary evocation of interest of the public in the kinds of activities that the Smithsonian does and puts on in the way of public exhibitions, particularly. This has been tremendously encouraging and rewarding to us.

When opened to the public, that building was only partially completed inside. We have a program of opening 10 new halls every year for approximately the next 5 years. In order to do that we will, of course, require additional guards, additional research people preparing exhibits, and a general gradual program of stepped-up development of the interior of the building.

MUSEUM OF HISTORY AND TECHNOLOGY

This year, therefore, we are requesting a considerable addition for "Salaries and expenses" for the Museum of History and Technology itself, as well as related buildings that the congressional committees have generously permitted us to construct in the past.

We have a wonderful additional building, the old Patent Office Building, which we are planning to open in 1967 for two galleries, the National Portrait Gallery and the National Collection of Fine Arts.

For these galleries we request an increase for stepped-up planning and development in order to prepare to open the galleries. The building itself is currently under renovation. Bids have gone out and were accepted in December. We have the money for that in hand, but we now require funds for staff and to arrange the exhibits. This is part of our request for this year.

REQUEST FOR FUNDS TO CONDUCT ARCHEOLOGICAL RESEARCH OVERSEAS

We propose an appropriation of \$1,300,000 for a program of grants to American universities and museums to conduct research in archeology overseas. Our budget proposes to finance this program by using foreign currencies determined by the Treasury Department to be in excess to the requirements of the United States.

ZOO IMPROVEMENTS

We are requesting \$1,539,000 to continue the 10-year program of improvements at the zoo. This program will modernize the exhibition facilities, eliminate heavily traveled roadways bisecting the park, provide automobile parking areas and construct necessary public service and administrative facilities.

We are particularly anxious to preserve the natural beauty of the

park, and this requires very careful planning in advance.

RESTORATION AND RENOVATION OF BUILDINGS

We are also including a request for \$2,248,000 for the restoration and renovation of buildings, principally the original Smithsonian Building. This will provide for general modernization of the third floor and installation of a new fourth floor in the center section which will soon be vacated by the Department of Botany.

In addition, we want to rehabilitate a portion of a rent-free building which we have been assigned for our use at the Naval Weapons Plant,

which is used for marine biology at the present time by us.

I think that, in general, highlights our budget request.

NATIONAL AIR AND SPACE MUSEUM

Senator Young. Your statement indicates that architectural planning of the National Air and Space Museum will be completed during this fiscal year. When will you ask Congress for authorization to construct this building, and when will it be possible for you to ask for construction funds?

Mr. Ripley. Sir, a bill to authorize construction of the National Air and Space Museum has already been introduced on January 6 of this year, S. 94, by Senator Anderson, a Regent of the Smithsonian. It is expected that the bill will be introduced in the next several days in the House.

An authorization bill passed the Senate last year, but unfortunately, due to the pressure of adjournment, was lost in the House without

passage, and so must be reintroduced this year.

We expect the building will be authorized for construction during the present session, and it will then be possible to submit a request for

construction funds during this same session of Congress.

If the supplemental request should be approved, it will be possible to go right into construction this coming summer. If the request is deferred until the regular budget for fiscal year 1967, then we would have to defer construction 1 year.

ESTIMATED COST OF BUILDING

Senator Young. What is the estimated cost of this building? Mr. Ripley. The total estimated present cost for the building is \$41,920,000. That includes parking facilities underground. The building, which is a very imaginative and stylish building, has already been approved by the National Capital Planning Commission and the Fine Arts Commission. It is one of the Fine Arts Commission's highlighted buildings of last year.

CIVIL SERVICE COMMISSION BUILDING

Senator Young. What is the status of renovation work being done to convert the old Civil Service Commission Building to a Fine Arts

and Portrait Gallery?

Mr. Ripley. This contract has been underway for several months. It was actually awarded in December 1964, to Grumley-Walsh, our contractor. We expect the building will be completed by November 1966.

The cost for this building, for which funds have been appropriated,

totals \$6,865,000.

Senator Young. When do you expect to be able to open this

facility to the public?

Mr. Ripley. We think that, based on the experience of similar galleries and exhibit areas, it will take about a year, and we should be able to open it in November 1967. It will be a great moment in the history of Washington when that combined gallery is opened.

CANAL ZONE STRUCTURE

Senator Young. In listing the proposed increases for next year, I note an item to provide a dormitory in the Canal Zone Biological Area. How large will this structure be, and how much will you spend for it?

Mr. Ripley. The Panama Canal Company gave us an estimate in 1963 of \$24,000 to build a dormitory-type building for the visiting scholars. This would include 4 bathrooms and 12 single rooms. We plan to use concrete block construction and slab with suspended ceilings and an aluminum roof.

We hope that we can do this on that budget, although, as you know, the building cost estimates change from year to year. This estimate is already a year old, but we are going to try, if we possibly can, to get this done for \$24,000.

EDUCATION AND TRAINING DIVISION FUNDS

Senator Young. Would you please discuss for the committee the various activities planned with the proposed increase in funds for vour Education and Training Division?

Mr. Ripley. We plan to establish a cooperative program of research

and training in the regular fields the Smithsonian undertakes.

One of our main problems in staffing is the fact that universities in general do not now have as many of the facilities for training graduate students in the areas of our traditional interests as we could wish

We hope by getting this cooperative program that we can take advanced students and actually have them perform tasks for us within our own laboratories, which not only enhances our own production, but also manages to get the students successfully trained for the careers which are available in this area.

For this, we need to make an effort on our own to offer help to the universities to get these young people trained. I think it is a very forward-looking step, and one which will be of great importance to the future of the Institution and, indeed, to the fields throughout the country.

TOTAL EMPLOYEES

Senator Young. How many employees do you have? Mr. Ripley. At the present time we have approximately 2,300 employees.

Senator Young. Altogether?

Mr. Ripley. Throughout. I think it is 2,300.

Is that the figure?

Mr. Bradley. Sir, we have on board at the present moment a total employment under this appropriation, "Salaries and expenses," of just under 1,500. To that must be added other employees that are financed not under this appropriation, but under the proceeds of research contracts and research grants, and that brings the total up to about 2,300.
Senator Young. How many people does it take to staff the Smith-

sonian Institution?

Mr. Ripley. Altogether? Senator Young. Yes.

Mr. Ripley. The total is approximately 2,300, if you add people on various scientific research grants and contracts.

STATUS OF ZOO

Senator Young. What do you have to do with the zoo, then? Mr. Ripley. The zoo is a bureau of the Smithsonian, and has employees, most of whom, of course, are essentially financed under the District appropriation.

Senator Young. This operation is financed by the District of

Columbia?

Mr. Ripley. Essentially by the District, and what we are doing through our budget is the capital improvement program, which is a 10-year program of renovating and improving facilities there. There are about 200 employees at the zoo.

SCIENTIFIC RESEARCH FUNDS

Senator Young. I note an item of \$350,000 which you request to accomplish scientific research formerly funded by the National Science Foundation. Why cannot funds continue to be acquired through the National Science Foundation, and what do you propose to do with the money for which you ask?

Mr. Ripley. This sum of \$350,000 is the average sum which we have been receiving in grants each year from the National Science

Foundation for our own research.

The Independent Offices Appropriation Act for fiscal 1965 includes a proviso prohibiting the transfer of funds for such purposes from one bureau to another, and recommended that the individual bureau ask for this directly from the Congress itself.

This is why we worked out the approximate figure that we had been

getting in the past, and ask the Congress for it this year.

We intend to allocate this money in exactly the same way as when the National Science Foundation gave it to us. We will have to set up research panels to advise and judge the requests for grants and the same standards of excellence we anticipate will prevail as when the National Science Foundation awarded them to us in the open market, as it were. Other scientists were requesting these moneys from all over the country.

EXTENSION OF VISITING HOURS

Senator Young. Last year Congress provided funds to permit you to keep certain of your buildings open during the evening and night hours. How did this work out?

Mr. Ripley. This was a wonderful success. We were very, very

heartened and pleased about the response from the public.

As you know, thousands and thousands of people in the Washington area do not get a chance to get away during office hours, and are starved, as it were, for opportunities to visit these buildings at night.

We had an attendance in 2 months of 750,000 people, approximately, during these off hours. This is a tremendous demonstration of interest. We feel wholeheartedly this is a great public service, and we want to keep the museums open again this summer.

Senator Young. Are any fees charged?

Mr. Ripley. No.

Senator Young. I never could understand why we charge a fee, even though it is small, for people to visit the Ford Theater. When we get that rebuilt, I think we will have to get this fixed.

How much, if any, do you propose to use for this purpose in fiscal

year 1966?

Mr. Ripley. In 5 months it will cost \$365,000 in services to keep the buildings open. This includes lights, heat, air conditioning, janitors, guards, and the normal kind of maintenance required just for those hours. Senator Young. How would that figure out per additional visitor?

Mr. Ripley. I suppose around 30 cents.

Mr. Bradley. You can perhaps figure this way: We had three-quarters of a million visitors in 2 months, so we would have something better than a million and a half visitors in 5 months, and a million and a half divided into \$350,000 would be 23 cents a person who enjoys entry.

Senator Young. I know there are many visitors coming here from my State that are interested in these things more than anything else

in Washington.

Mr. Ripley. Last year, including the zoo, we had 14 million visitors,

which is a fantastic number.

Senator Young. Mount Vernon seems to be the No. 1 attraction. I do not know how many visitors they have out there, but they must have a tremendous number, too.

Mr. RIPLEY. I do not have the figures offhand.

(The information requested follows:)

Attendance at Mt. Vernon in 1964 was 1,347.372.

Senator Young. Probably not as many as you do. It is not as readily available.

Mr. Ripley. It does take a little while to get out there by bus or car.

ARCHEOLOGICAL RESEARCH AND EXCAVATION

Senator Young. The Smithsonian Institution requests an appropriation of \$1,300,000 to be derived from excess foreign currencies owned by the United States. The justification for this request will be placed in the record.

(The justification referred to follows:)

ARCHEOLOGICAL RESEARCH AND EXCAVATION

(SPECIAL FOREIGN CURRENCY PROGRAM)

An appropriation of \$1,300,000 is requested for fiscal year 1966 to undertake a program of awarding grants to American universities, museums, or other institutions of higher learning interested in conducting research and excavation

in archeology and related disciplines in foreign countries.

The Smithsonian makes this request in the firm belief that support to American archeology abroad constitutes a valuable and timely benefit to American scholarship and to the host nations as well. Archeology, which the Institution defines as both the humanistic and scientific approaches to the study of ancient man, is not a "dead science." In recent years radioactive carbon dating, isotope analysis, and other modern techniques have shed new and accurate light on the origins and migrations of peoples, crops, animals, and articles of manufacture. Thus, archeology today is not only the fountainhead of history, but a science which directly contributes to present-day understanding of interclutural relationships, land use, agriculture, and trade. The record of American universities or museums which have contributed in this manner to our knowledge of the heritage of man through fieldwork abroad is a distinguished one; it is a record that can be enormously enhanced by modest help in foreign currency grants.

To a degree not found in other disciplines, the costs of archeological expeditions

are more directly expended in the field than in preparatory organization, in the salaries of foreman and laborers, for example, or construction of buildings to preserve equipment and excavations. A small amount of help in meeting local expenses can therefore often mean the difference between continuing or abandoning promising archeological projects. The value of such help has been proven by the grants which the Department of State formerly gave to various American universities and museums. The State Department now fully endorses Smithsonian assumption of this responsibility on the grounds that archeological programs most properly fall within this Institution's purview and competence.

Under this program, the Smithsonian would not itself be heavily engaged in oversea projects, but would instead set up an advisory group, composed of experts within the Institution and without, to make value judgments on the proposals of American private institutions and to award and administer foreign currency grants accordingly, for maximum benefit of all participating institutions,

> as well as the Smithsonian.

Typical project proposals which the Institution would consider might include surveys of prehistoric sites in Egypt, excavation of Biblical sites in Israel, surveys of the potentially rich Peshawar Plain in Pakistan, or research aimed at coordinating disparate archeological findings in various States of India, as a guide to future excavations. American institutions that have been and continue to be interested in such projects include Cornell, Pennsylvania, Harvard, New York University, Emory, Southern California, the University of Washington, Michigan, the American Museum of Natural History, the Fogg Art Museum, and many others.

The Smithsonian's authority and competence to be associated with archeological programs, here and abroad, are clear and long standing. Beyond James Smithson's original mandate for the increase and diffusion of knowledge, there is the historical fact of the Institution's early attention to archeology, beginning in 1847 when Secretary Joseph Henry recognized the importance of the findings of two American archeologists investigating Indian mounds in Ohio and published their work, "Ancient Monuments of the Mississippi Valley," a pioneer effort in American archeology and the Smithsonian's first scientific publication. Thereafter, Congress supported expeditions sponsored by the Smithsonian which scientifically explored the geology, archeology, and ethnology of our Western States. In 1879, aware of the increasing importance of these expeditions, Congress gave them a more established authority and regular appropriations by creating the U.S. Geological Survey within the Interior Department and the Burcau of Ethnology within the Smithsonian. That year, also, Congress directed that "all collections of * * * objects of natural history, archeology, and ethnology" made by Government agencies or parties for the Government of the United States be deposited in the Smithsonian's National Museum.

Today, the Smithsonian continues its concern with American archeology and maintains close contact with the leading American institutions and professional associations, including the Archeological Institute of America, which has its chartered address and holds its annual meetings at the Smithsonian. But the Institution has also gone on to preeminence in the study of man in many parts of the world. Among its curators are experts who have pursued archeological investigations in every major world area and have working relationships with many foreign

institutions.

It is because of this past record and these presenty-day associations that the Institution believes it has a strong obligation to support American archeology in the developing countries. In certain of these countries, foreign currency excess conditions exist, principally in the Middle East, where American institutions face increasingly competitive interest by European nations. Such support will result in the enrichment of collections and the advancement of knowledge in American museums and public or private institutions of learning. It will also result in creating strong cooperative ties with the host nations, where archeology is universally welcomed as aid which goes to all sectors of society, from the foreign scholars working with Americans to the considerable number of laborers employed in the larger excavations, and as a proven stimulus to tourist industries.

Program support, plan of work

Staff and other expenses to administer this program have been included under "Salaries and expenses" rather than this appropriation on the advice of the Bureau of the Budget.

Oversea program, apportionment of foreign currencies

To finance the costs of this program of grants for archeological exploration, excavation, and research, the Institution will seek such foreign currencies as the Treasury Department has determined to be excess to the normal requirements of the United States. At the moment of writing, the excess currency countries, are India, Pakistan, Israel, Egypt, Poland, Yugoslavia, Burma, and Brazil.

Since the Smithsonian's most essential function in this program will be to evaluate future project proposals from other institutions, an exact country-by-country project inventory is neither possible nor necessary at this time. But estimates may be made from two sources. First, there are some six American archeological excavation or research projects which have in the past received modest foreign currency grants from the State Department which the Smithsonian would seriously

INTERIOR AND RELATED AGENCIES APPROPRIATIONS, 1966 1419

consider for continued support, since their importance is well known to the Institution. They are as follows:

Institution	Project	Estimated grant
Carnegie Museum, Pittsburgh Theological Seminary.	To continue excavations at Ashdod, Israel, which are important for amplification of Biblical history in the periods of the exodus from Egypt, the wanderings in the wilderness, and the conquest of the Promised Land.	\$80,000
Corning Museum of Glass, Columbia, Mo., and Corning, N.Y.	To survey, record, and excavate Phoenician glass factories along the Israel coast which hold the key to ancient Mediterranean trade routes.	15, 000
Hebrew Union College; Jerusalem School of Archeology.	To further survey and explore some 400 archeological sites in the Negev and to conduct seminars in Biblical archeology.	80, 000
Institute of Mediterranean Studies (a nonprofit organization supported by 8 American universities and theo- logical seminaries).	To continue excavations at Tell Nabila, Israel, site of the largest known Canaanite fortress and an iron age Israelite city.	55,000
American Research Center in Egypt, Inc. (a nonprofit study center sup- ported by 10 American universities).	To generally support the center's research program, in the archeology of Egypt, which comprehends both surveys and excavations of Pharaonic, Hellenistic, Roman, and early Christian sites.	250, 000
University of Washington, American Museum of Natural History.	To continue exeavations important to the understanding of the birth of the Indus Valley civilization and its relation to Western culture, near Quetta, Pakistan.	75, 000
Total		555, 000

Second, in justice to the many essential study and excavation opportunities

Second, in justice to the many essential study and excavation opportunities in both Pakistan, where very little archeological work has been done, and other of the excess countries listed above, the Smithsonian would want to devote at least half or more of its grant resources to pioneer projects.

The Institution has already received general expressions of interest from leading private institutions, including the University of Pennsylvania, Dumbarton Oaks, Harvard, and others, for projects in these countries, where American archeology is virtually unknown. The following are typical projects of this kind, along with cost estimates based on averages for major excavations, minor excavations or explorations, and surveys:

Country	Possible project	Estimated cost
India	Support to the American Institute of Indian Studies or similar organization for comprehensive surveys, research and recording of data on archeological sites of India, as a guide to future excavations.	\$250,000
Do	exceedings. Investigations and excavation of Mandu, the ruined capital city of the ancient State of Malwa and a cultural center of great antiquity.	150, 000
Pakistan	Survey of the Peshawar Plain, a region of numerous town sites dating from the 1st to 5th centuries and the principal area of Alexandrine influence.	50, 000
D0	Survey of potential sites in Baluchistan which should reveal much of Parthian and early Islamic influence on Indian culture.	30,000
Do	Field research on the numerous historical monuments of Thatta in Sind to provide clues about medieval and pre-Mughal civili- zations, which, apart from architecture and paintings, are	30, 000
Burma	largely unknown. Excavation of 6th and 7th century sites of Pagan in the Myingyan District which should provide significant information on the origins of Buddhism.	150,000
Do	Exploration of the Sivalik Hills, known to be of potential interest	15, 000
Yugoslavia	for remains of primates and early man. Photographic surveys and documentation of 20 to 30 Byzantine	20,000
Poland	monasteries. Exploration and excavation of neolithic, early bronze age and historic sites in the Vistula and Oder River basins, to determine chronological patterns of settlement.	50,000
Total		745, 000
-Drowiewels lieted		555, 000
Grand total		1, 300, 000

PURPOSE OF REQUEST

Senator Young. Would you please discuss this program briefly for the committee?

Mr. RIPLEY. Yes, sir.

This appropriation is requested to undertake a program of awarding grants to universities which have in the past been getting similar sums of money for their research and excavation in archeology in foreign countries.

We make this request in the firm belief that support to American archeology abroad constitutes a valuable and very timely benefit to

American scholarship and to the host nations, as well.

Archeology, which we define as both humanistic and scientific approaches to the study of ancient man, is certainly by no means a "dead science," especially in the classical lands of the Mediterranean

and east to India.

It is extraordinary what good will these programs create in the nations where they are conducted. We would not be heavily engaged in the oversea projects, but we would set up an advisory group composed of our own authorities, and a panel from outside, to judge the proposals made by the American institutions, and to award and administer the grants to them for the benefit of all the participating institutions.

We have every belief that, as the father and mother of archeology in this country, the Smithsonian can perform this in a meritorious way.

The first archeological expeditions in this country were started by the Smithsonian in 1847, and the first publication was by the Smithsonian in 1848.

Senator Young. What was that?

Mr. Ripley. It was Ancient Monuments of the Mississippi Valley. That was a famous expedition which was sponsored by the Smithsonian.

Senator Young. Is the work which you propose to be done only in those countries where foreign currencies owned by the United States are in excess to the U.S. needs?

Mr. Ripley. Yes, sir, it is.

Senator Young. This is a good expenditure of money.

Mr. Ripley. I think it would be a magnificent thing to accept this and to be able to carry it out.

EXPENDITURES IN INDIA AND EGYPT

Senator Young. Will you get all the foreign currencies you can use,

for example, in India?

Mr. Ripley. This has to be done, of course, with a joint panel of Indian experts. I have been in correspondence with the Ambassador about the possibility of developing something along these lines. As you know, in India there are tremendous sums of excess currencies.

Senator Young. I think we have a big excess, too, in Egypt.

Do you have a program in Egypt?

Mr. Ripley. Yes, there is at present an American study center in Cairo which has six or seven participating universities and institutions, and we would help to undertake some of the projects underwriting them through our support.

Senator Young. How many American dollars will be required to administer this program?

Mr. Ripley. \$115,000, altogether.

Senator Young. Are they included in this budget estimate of \$1,300,000?

Mr. Ripley. They are included under our "Salaries and expenses"

appropriation.

Senator Young. Would you just elaborate a little bit more on the kind of work you will be doing in Egypt? I am greatly interested

in the history of Egypt.

Mr. Ripley. I have been very much interested in this myself. In fact, I am a thwarted archeologist, because when I was 13 I thought the one thing I wanted to be was an Egyptologist.

WORK IN EGYPT

There are a considerable number of excavations which have never been done in Egypt. One of the nice things about this is when you set up an excavation of this sort, the American team, consisting of 3 or 4 people, are in touch with anywhere from 200 to 500 Egyptians, and they have extremely close relations with them.

They are organizing in a common task, and really working like dirt farmers, excavating in the sand and dirt. They build up a very, very close personal friendship with these people. This has nothing to do with politics. This is people to people.

It is extraordinarily interesting in what great esteem the archeologists are held by the everyday people in these countries. I think

it is a wonderful thing.

The areas which are particularly interesting today—some of them are not far from the pyramids, but further back into the desert—consist of a series of unexcavated, unworked pyramids in the area behind Memphis and behind the steep pyramids of Saqqarah, which

previous expeditions have never gotten into at all.

There is just too much to do. And the Egyptian Government, their Antiquities Department, has indicated that they are perfectly willing to have foreign government nationals come in and do this work, because they realize they could never begin to get it done themselves. If we do not support some of the American institutions, it will be done, but it will be done by the West Germans, the Danes and Swedes, the French to a lesser extent, the Italians, and even the Indians who have had archeological work going on in Egypt for the last 5 or 6 years.

I think it is a very meritorious project.

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

Senator Young. For fiscal year 1966 the Smithsonian Institution requests an appropriation of \$1,539,000 for construction at the National Zoological Park. The justification for this request will be printed in the record.

(The justification referred to follows:)

CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK

Appropriated, fiscal year 1964	\$1, 275, 000
Appropriated, fiscal year 1965	1, 525, 000
Estimate, fiscal year 1966	1, 539, 000

An appropriation of \$1,539,000 is requested for the fourth year's capital improvement projects at the National Zoological Park. The 10-year program is designed to modernize the exhibition facilities, eliminate heavily traveled roadways bisecting the park, provide automobile parking areas, and construct necessary public service and administrative facilities.

Funds totaling \$1,275,000 in fiscal year 1963, \$1,275,000 in fiscal year 1964, and \$1,525,000 in fiscal year 1965 have been appropriated for the first 3 years of a continuing program of capital improvements at the National Zoological Park. These appropriations have provided for relocation of the east-west road from Connecticut Avenue to Harvard Street; construction of the bird flight cage, and remodeling of the bird exhibition building; construction of exhibits and houses for hardy hoofed stock, delicate hoofed stock and deer; construction of two paved parking areas for visitors' automobiles and buses, a property yard, an incinerator, and planning and installation of new sewerage system and utilities.

There follows a summary of the projects to be undertaken with fiscal year

1500 Tulius.	
Planning: Detailed plans and designs for fiscal year 1967 projectAdvance planning and consultation for fiscal year 1968 projects	
Total planning	169, 000
Construction:	
Hospital and research building and supporting areas Animal conditioning areas	
3. Supply, property, and transportation building	
4. Maintenance and repair shops	
5. Gardner's building (greenhouse)	1, 370, 000
Total	1, 539, 000

Planning, \$169,000

Detailed plans and designs for fiscal year 1967, \$134,000: Detailed plans will be made for the construction of a multiclimate house, a special environmental building which will be divided into the zones of climatic control to accommodate certain tropical, desert, and temperate zone creatures. In this building will be exhibited those peculiar species of animals which cannot be exhibited other than by duplicating their natural home, or are best kept under controlled conditions of temperature and humidity. Such animals include manatee, platypus, specialized monkeys and apes. The location of this building is west of the small mammal building and south of the elephant house.

Smithsonian Institution expenses, \$15,000

The Smithsonian Institution will require \$15,000 in fiscal year 1966 for the improvement program, including consultants' fees, travel for inspection of good design practices in other zoos, purchase of equipment, and similar expenses directly related to the program of improvements.

Advance planning and consultation for fiscal year 1968, \$20,000

Advance plans will be made for constructing new exhibits for bears, goats, canines, and aquatic mammals, and for additional landscaping and parking.

Construction, \$1,370,000

1. Hospital and research building, a bilevel structure to be situated on the side of the hill northwest of the Holt Mansion, will be constructed in fiscal year The animal hospital, with a series of administrative, clinical, animal holding, and post mortem areas, will be located in the lower level. An entrance lobby will serve both hospital and research facility.

The upper level will contain a library, conference room, four laboratories, and five multipurpose research rooms, with animal holding areas for animal behavior

and breeding studies.

2. A 6-acre area surrounding the research building will be developed for conducting research in curatorial and husbandry techniques and behavioral and ecological factors. This animal conditioning area will include large mammal enclosures, small mammal "runs," large enclosure for birds and reptiles, concrete pool, and a mud-bottom pool.

3. A supply, property, and transportation building will be constructed near the Adams Mill Road entrance, removing commercial deliveries from the public areas.

It will house all zoo vehicles and mobile equipment and a maintenance garage.

The upper level will be a property warehouse with loading docks.

4. A two-level building consisting of two large open areas will be built for the maintenance and repair shops. The carpentry, sheet metal, paint, cement, plumbing, machine, and electrical shops will be arranged according to the needs of their equipment and operation.

5. A gardener's building will be constructed directly southwest of the present administration building. This will consist of a 40- by 100-foot greenhouse of standard commercial design and a small area for offices, locker rooms, and

equipment.

STATUS OF WORK

Senator Young. What is the status of the work for which funds

were provided in past years?

Mr. Ripley. We have received funds totaling \$4,075,000 through 1965 for the first 3 years of this program. This has provided for relocation to the periphery of the park of the east-west road from Connecticut Avenue to Harvard Street; construction of the bird flight cage and reconstruction of the birdhouse itself; construction of two paved parking areas for visitors; an incinerator; and planning of new sewerage systems and utilities.

We have an unobligated balance as of January 31, 1965, of \$2,281,000, and we estimate that \$2 million will be obligated before

the end of this year.

Senator Young. Are you on schedule with your planned 10-year improvement program at the zoo?

Mr. Ripley. Would you like to speak to that, Mr. Bradley?

Mr. Bradley. Yes, sir. Mr. Chairman, we are nearly on schedule. There has been some slippage that we expect to overcome this spring.

First of all, the contemplated 10-year program would have had appropriations at the level of \$1,700,000 each year, and so far we have \$1,275,000, \$1,275,000, and \$1,525,000 and again we are asking for a

million and a half.

If we can keep up our present level that is before you now, we can do it in 12 years, 9 years on top of the 3 that have gone by. should about come up to that schedule by June 30 of this year.

PROPOSED PROJECTS FOR FISCAL YEAR 1966

Senator Young. What projects do you propose to accomplish in

the coming year?

Mr. Bradley. In the coming year we would like very much, sir, to undertake a hospital and a research building. This is an animal hospital and an animal research building, with the supporting animal conditioning areas nearby, and the utilities or backup works that make the whole park operate properly; the supply and property yard, the truck buildings, repair shops, greenhouse, and then the ancillary roads, walkway, grading, and retaining walks.

These, Mr. Chairman, are the very essential supporting features

that make the park operate properly. These are the behind-the-

scenes supporting facilities.

Senator Young. How big a hospital will this be, and what will it do? Mr. Bradley. This hospital and research building, together with the animal conditioning area, the service area, and related facilities, will cost \$1,370,000. It will have a series of administrative, clinical,

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animal holding, and post mortem areas, so that the veterinarians and the curators can learn the information about animals that we need to know. The building itself will comprise approximately 14,000 square feet.

We need to know what keeps them alive? Why did they die? What is their best diet, and nutrition? What are the breeding habits? Senator Young. Would you be situated so that you can hospitalize

an elephant or a weasel?

Mr. Bradley. Yes, sir.

Mr. Ripley. I think that an elephant you will probably have to keep in its own enclosure, and just take care of it, and coddle it as best you can, but we can certainly handle the larger primates and hoof stock in the hospital we propose.

Senator Young. How many veterinarians do you have?

Mr. Ripley. The Director himself is an experienced veterinarian. Dr. Gray is the principal veterinarian under him, and he has two assistants.

ANIMAL AND BIRD COLLECTION

Senator Young. About how many animals and birds do you have out there?

Mr. Bradley. I have this figure in mind, sir. The count of the individual animals would approximate 3,000. In that 3,000 there would be approximately 850 different species represented on exhibition in the park.

Senator Young. This is one of the better zoos in the United States,

is it not?

Mr. Bradley. In respect to many features, yes. In respect to the animal collection we say yes, proudly and confidently. We have a large park, 165 acres, in a beautiful, topographically interesting park. In respect to the physical features that present the animals to the humans, however, that is where the 10-year construction program is needed, in order that we can better show natural habitat, remove the iron bars, and make more pleasurable and more natural the viewing of the animals by the people.

Mr. Ripley. Many of the buildings are hideously outmoded and old fashioned. This is an eyesore, and terribly important to get

corrected.

VISITORS TO ZOO

Senator Young. About how many visitors do you have at the zoo each year?

Mr. Bradley. The visitors in 1964 were over 3,900,000 in a year.

We are probably now over 4 million annually.

Our difficulty in not giving an exact figure is that we still have arterial traffic going through the zoo, and it is a little difficult statistically to separate those traveling through the zoo in order to get home and those going into the zoo to visit.

Senator Young. I like to drive through there, myself.

RESTORATION AND RENOVATION OF BUILDINGS

For fiscal year 1966 the Smithsonian Institution proposes an appropriation of \$2,248,000 to restore and renovate the Smithsonian

Building and to alter some space now occupied by the Smithsonian Institution at the naval weapons plant.

The justification for this estimate will be included in the record.

(The justification referred to follows:)

RESTORATION AND RENOVATION OF BUILDINGS

An appropriation of \$2,248,000 is requested for fiscal year 1966 for the restoration and renovation of the Smithsonian Building and for the alteration of occupied space at the naval weapons plant.

Smithsonian Institution Building

The sum of \$2,054,000 is requested to modernize the third floor, install a fourth floor to provide urgently needed space, and to air condition the entire Smithsonian Building.

The expected completion of the west wing of the Natural History Building in 1965 will make possible the removal of the National Herbarium containing over 3 million botanical specimens, together with the curatorial and research offices of the department of botany, from the third floor and the improvised steel deck over the third floor. This will provide an extraordinary opportunity to acquire a substantial block of valuable office space within an existing building at minimum expense, by improving the usefulness of the upper floors of the building for curatorial and administrative work areas. The net gain in usable office area will be 20,000 square feet.

The Smithsonian Building is one of the important 19th-century buildings of our country and has been designated by many architectural historians as one to be preserved for its historical significance. It was the first building in America to be erected in the style termed by its designer as Lombard Romanesque. James Renwick, Jr., first president of the American Institute of Architects, was the

designer.

The renovation of the third and fourth floors of the Smithsonian Building will include a new metal spiral stairway in the southwest tower between the third and fourth floors; two toilet rooms; new passenger elevator in the south tower with service stops at all five floors; and fluorescent lighting for the third and

fourth floors.

In addition, for the comfort of the many visitors (1,311,000 in 1964) to the exhibition area of this building, as well as for the efficiency of workers in the administrative and curatorial offices, it is proposed that the entire building be air conditioned; the heating system be renovated; and that separate storm and sanitary sewers be provided for the entire building. An underground transformer vault will be installed.

The estimate of \$2,054,000 for air conditioning the building, modernizing the third floor, and installing a new fourth floor has been provided by the Public Buildings Service, General Services Administration.

Alteration and improvement of space at naval weapons plant

The sum of \$194,000 is required to convert 30,000 square feet of industrialtype building space at the naval weapons plant into research laboratories and workrooms for the Smithsonian's Museum of Natural History. The Institution is developing competence to handle the natural history specimens of marine organisms and sediments. This competence will supplement research developments in other agencies in the fields of sedimentology and marine biology

The Smithsonian Institution is now occupying approximately 30,000 square feet of rent-free space at the naval weapons plant. The additional space will allow expansion of the sorting center and development of a sedimentation laboratory. It will provide for an identification service for specimens. An area equivalent to that already occupied will require extensive alterations and improvements to make it suitable for these scientific activities.

Included in the alteration work are installation of floor tile, steel shelving, new partitions, and ceilings; modifying the heating and lighting systems; replacement

of windows; and repainting.

The estimate of \$194,000 is based on the cost of converting the previously acquired space into research laboratories and workrooms.

EXPENDITURE OF FUNDS

Senator Young. Will you please describe to the committee the amounts of money which you propose to expend at each of these places, and the reasons why it is desirable that these expenditures be made?

Mr. Ripley. Yes, sir.

We plan to spend \$2,054,000 to restore and renovate the Smithsonian Building itself. That is the brownstone building on the Mall. This is a very important 19th-century building. It is one of the most important examples of its type architecturally in the country, and has recently been declared a historic landmark. It is also the home, sort of symbolic home, of the activities which have made the Smithsonian famous. We feel it deserves the kind of treatment inside which its outside symbolizes in being declared a historic landmark.

We are going to have the bicentennial celebration in September of the birth of Smithson, the benefactor who gave the money to the Nation to start the Institution; and we feel it is high time that we started appropriate renovation of the building to maintain its historic

splendor and traditions.

This has been possible this year because the west wing of the Natural History Museum is being completed, and we will have a chance to remove the Department of Botany, which has been stored in the Smithsonian Building at considerable hazard to the specimens because of crowding. We will then have the opportunity to renovate the interior.

We want to install a fourth floor to provide urgently needed space, and to air condition the building, which will be possible now during the renovation which will give us the space to put in ducts and do

that sort of work for the first time.

I think this will be an extraordinary opportunity to get us a substantial block of office and laboratory space within the existing building, at minimum cost, by improving the usefulness of the upper floors, as well as restoring the lower part of the building to its pristine elegance and splendor.

NAVAL WEAPONS PLANT

At the Naval Weapons Plant we propose to invest \$194,000 to convert 30,000 square feet of industrial building space into research laboratories for the Museum of Natural History for marine biology.

Included in the alteration work will be installation of floor tiles, heating and lighting modifications. We are fortunate to have this building, because it is rent free.

Senator Young. About how many items do you have altogether

in the Smithsonian Institution?

Mr. Ripley. I think the approximate number is 59 million. Senator Young. No wonder I cannot see it all in an afternoon. Thank you, Dr. Ripley.

expenses of the new employees. Therefore a higher level of funding is required to permit carrying out a desirable planning program for the District of Columbia and the Federal interests in the National Capital region.

I strongly urge that the entire budget amount be restored. The Commission

members and I are fully behind this budget.

There is today a new consciousness of our environment and the part it plays in enriching or depriving the lives of everyone. The President's great message on natural beauty and his recent message on the District of Columbia give added emphasis to the importance of the physical environment in our daily lives. As the physical planning agencies for the city, the Federal Establishment in the metropolitan area, and the coordination of metropolitan planning, the Commission and the Council are concerned with the day-to-day change and development of our environment. To plan for the development of the Nation's Capital, and in fact the world capital, we need to have adequate financing.

Sincerely yours,

Mrs. James H. Rowe, Jr., Chairman.

DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATION BILL, 1965

H.R. 6767

APRIL 5, 1965.

Proposed amendment relating to the National Capital Planning Commission: "Salaries and Expenses

"On page 37, line 21, strike out '\$800,000' and insert in lieu thereof '\$1,000,000'."

NATIONAL COUNCIL ON THE ARTS, Washington, D.C., April 1, 1965.

Hon, CARL HAYDEN, U.S. Senate, Washington, D.C.

DEAR SENATOR HAYDEN: This is in response to your letter of March 31, with

respect to the 1966 budget request for the National Council on the Arts.

We request that the amount on page 38, line 12, of H.R. 6767, as passed by the House, be increased from \$50,000 to \$100,000. We believe that no less than this amount should be provided if the Council is to begin to carry out the functions assigned it by the National Arts and Cultural Development Act of 1964 which was approved on September 3, 1964.

The increase is requested to carry out our planned program which includes compensation for the Council members, compensation for the staff, travel expenses, purchase of equipment and operating expenses, plus employment of consultants on a temporary basis to make special studies and recommendations for the Council and to consult with local, State, and Federal authorities at the direction of the Council.

Sincerely.

ROGER L. STEVENS, Chairman,

SMITHSONIAN INSTITUTION

JUSTIFICATION OF APPEALS TO H.R. 6767

"SALARIES AND EXPENSES," FISCAL YEAR 1966

LANGUAGE SHEET CHANGES

Official reception expenses

On page 39, line 4, of H.R. 6767 after "publications," insert the following: "and not to exceed \$2,000 for official reception and representation expenses."

The Secretary of the Smithsonian Institution has the same need to provide official entertainment as a representative of the United States as do the heads of at least seven other agencies receiving such an appropriation in the current year.

The Institution is visited by foreign heads of state as a traditional part of their visits to the Capital of the United States. Heads of learned societies and museums, scientists, artists, historians, and scholars also come from all over the United States and, in fact, the world. It is required, therefore, that the Secretary, as a representative of the United States, hold receptions and dinners commensurate with the standing of the Institution in the scholarly community and in national and international circles.

The Institution depends on public support for contribution of thousands of precious objects and priceless gifts which comprise the national collections of scientific, historical, and art objects. Official receptions and public gatherings, exhibition openings, lectures, special exhibitions, and similar ceremonies are essential to provide an opportunity for presentations to the public and for recognition of the generosity of the donor. Modest provision for the expenses of such official

events is therefore necessary.

The amount requested is below the average appropriated in 1965 for this purpose to the seven other agencies: Office of the Secretary, Department of the Interior; Public Health Service; Federal Aviation Agency; Treasury Department; Veterans' Administration; Federal Power Commission; and St. Lawrence Seaway Development Corporation.

Change of amount

On page 39, line 4, change \$18,468,000 to \$20,805,000. The justifications for this change in amount appear on the following pages.

SMITHSONIAN INSTITUTION

JUSTIFICATION OF APPEAL

"SALARIES AND EXPENSES," FISCAL YEAR 1966

Wage board and other increased personnel costs

Agency request	\$552,000
House allowance	352,000
Appeal	200,000

Restoration of \$200,000 is requested for the cost of wage board and general schedule increases now in effect, to pay full-year salaries of existing positions, and to pay for within-grade salary increases as provided by law. No reduction can be effected in these costs without seriously curtailing the museum, art, and scientific programs of the Institution, and the protection, operation, and maintenance of the Smithsonian buildings and grounds.

From an analysis of all wage board positions, it was determined that the cost in 1966 of increases granted in December 1963 will total \$90,000. There is no

provision for this cost in the base appropriation.

The salary increases (Public Law 88-426) for general schedule employees will cost an additional \$62,000 in fiscal year 1966 because three workdays were excluded in 1965.

To pay full-year salaries in fiscal year 1966, with an expected savings of 3.7

percent of personnel compensation, will require \$250,000.

The amount of \$150,000 is required for within-grade salary advancements in accordance with law. This sum includes a portion of the 1966 increases and the additional cost resulting from part-year increases in 1965. The cost has been reduced by offsets resulting from turnover and promotions.

The reduced allowance by the House will not cover these known costs, and cuts in essential programs and supporting services will become necessary unless

restoration is approved.

Astrophysical Observatory

Agency request	\$493,000
House allowance	200,000
Appeal	293, 000

Restoration of \$293,000 is requested for the Astrophysical Observatory. This Observatory has become an internationally recognized center for stellar and solar astrophysics, mainly because of its success in applying modern computer technology to stellar theory. Faster computers and new mathematical techniques now promise great advances in this field. Additional financial support is needed for the expensive computations involved. This Observatory is concerned with pure science and basic research. It may be recalled that the basic

concepts of atomic energy were first recognized in its astrophysical setting. Now, new astronomical bodies of extreme brightness have been discovered. Called quasars, they are not yet understood but may soon lead to far-reaching discoveries.

The Smithsonian Astrophysical Obeservatory has joined Harvard University and the Massachusetts Institute of Technology to make preliminary studies in preparation for a major radio telescope facility to achieve the next steps in this most exciting area of modern astronomy. Funds for scientific staff and engineering studies are needed to carry out Smithsonian's part in the joint effort. Lacking such facilities, the United States is still behind England and Australia in radio astronomy.

The requested restoration will also provide for scientific and technical services and equipment in the Observatory's other fields of research, not possible under present limitations of funding. These fields include particularly the study of comets and interstellar matter, meteoritic material in the solar system, exobiology, and the gravity, surface structure, and atmospheres of both the earth and the moon.

Museum of Natural History

Agency request	\$1,665,000
House allowance	500,000
Appeal	1, 165, 000

The purpose of increases requested for the Museum of Natural History, which is the national institution for systematic biology, anthropology, and mineralogy, was not to begin new research activities but to derive greater returns from those already underway. The increase requested for fiscal year 1966 was \$1,665,000, including \$852,000 for the national marine biology program. Of this total increase, an allowance of \$500,000 was approved. It is urgently requested that the amount of \$1,165,000 be restored.

The Institution gave low priority to new research positions in its fiscal year 1966 request. Instead, the bulk of the request for this Museum was to enable the Institution to employ technical, administrative, and clerical assistants to provide supporting services for the research staff, to meet increasing demands for identification, and to provide assistance to other research workers and to the public. Demands for information services from all levels of the American population, from the primary school student writing a paper for a science class to the doctoral candidate preparing a thesis, and from local, State, and Federal agencies, universities, and other nonprofit and profit organizations, have grown to a crisis point. Many of these inquiries could be adequately answered by technicians at lower levels and without such help must be refused. Many other services provided by Smithsonian, such as the identification of specimens, will have to be cut back or peformed in large part by nonscientists.

The Civil Service Commission and numerous outside consultants and boards of review have urged the Smithsonian to expand supporting staff and its administration has adopted this as an urgent objective. Many of the professional scientists are the only specialists in groups of organism in the Nation or in the free world. The Institution is keenly aware of its responsibility to see that their time is available for scientific investigations at the professional level. An internal survey revealed that less than half the worktime of the professional research staff in biology and anthropology is spent in activities at the professional level; the rest is routine. Technicians, administrative, and clerical assistants are urgently needed to stop this waste of talent.

The Institution is mindful of the interest of the Congress in expanded opportunities for technicians and other nonprofessional personnel. The requested program of technician support for staff scientists within the Museum of Natural History would make a distinct contribution to national objectives in training and employment for this promising category of the work force, in life sciences where many institutions have been reluctant to employ them. It is our judgment that the most efficient way to institute this program is in a single year, so that supporting personnel could receive training all at once, and recruitment for the positions could be undertaken on a nationwide basis instead of just near the District of Columbia. Consequently, the Institution most urgently requests full restoration of the increase for the Museum of Natural History.

The scope and purpose of the oceanography program, which is strongly supported by the administration, have been developed with the approval of the Interagency Committee for Oceanography, including the Departments of Defense, Interior, Treasury, and Commerce, and the National Science Foundation and

the Atomic Energy Commission. Their recommendations are designed to eliminate a crippling disparity between physical and biological oceanography. Even with the full restoration, less than 2 percent of the national oceanographic program will be devoted to research on the organic content of the sea. The Smithsonian program is therefore a critical ingredient in the national oceanography effort which will involve a total outlay by all Federal agencies of about \$150 million in fiscal year 1966. It is the universal judgment of the scientific community that knowledge of species biology is not keeping pace with the internal needs of the life and other sciences for such information, both in oceanography and in biology as a whole.

Administration \$479,000

Agenty Tedfacts 300, 000
House allowance 300, 000
Appeal 179, 000

The restoration requested for essential administrative services (\$179,000) will provide substantially less than the justifiable amount commensurate with the enlarged scope of the Institution's activities under the House bill. The library, scientific and historical publications office, museum services, fiscal division, and the Secretary's immediate office are most seriously understaffed to provide services that are vital to the Institution's other programs.

Restoration is needed so that the library can provide more adequately the bibliographic and reference services so essential to the scientists in their research. Additional funds are needed to hire science and history editors and for printing costs so that the results of basic research performed at the Smithsonian can be published and provide valuable information to scholars and the public. Serious backlogs of publications require that we most urgently request restoration of the House cuts.

The Smithsonian Museum Service is engaged in developing the public educational potential of the Smithsonian. It is engaged in preparing cultural and educational programs related to science, history, and art. The modest increase requested is needed to permit more of the public to see, hear, and learn about the national collections and treasures to be found in the Smithsonian museums and art galleries.

Restoration is sought also to strengthen the fiscal services of the Institution, Provision for the indispensable cost accounting and auditing of all financial transactions has lagged far behind the present scope of the Institution's activities. A modest additional of three fiscal clerks to the small staff will be an important step toward improved financial accountability.

Restoration is particularly needed in order that the Secretary through his immediate professional assistants can more adequately carry out the substantially increased responsibilities now assigned by the Congress to the Institution. Included in these steadily growing responsibilities are the National Portrait Gallery, the National Armed Forces Museum Advisory Board, membership on the National Council on the Arts and the Commission on Pennsylvania Avenue, mounting activity as Trustee of the John F. Kennedy Center, and the major programs for "increasing knowledge" through scientific and historical research, art, and museum presentations. The Secretary's staff is small and will remain so. A modest increase in funding as requested will provide the Secretary with specialized and professional assistance in the greatly diversified areas of his responsibilities.

National and international cooperative research and training

Agency request	\$500,000
House allowance	0
Appeal	

The proposed program of cooperative research and training in the Smithsonian Institution is designed as a first effort to reach a basis comparable to every other agency of the Government concerned with scientific research. For many years educators and officials of the executive branch have urged that the resources of the Smithsonian be placed more fully at the disposal of colleges and universities so that their scholars could conduct studies in both science and the arts using the Nation's unique collections and other facilities of the Institution.

A request of \$500,000 for this purpose was denied although it represented a smaller program of visiting research appointments than those long established at other comparable Government centers. The same request would have permitted a very modest program of training for museum workers from elsewhere in the country to learn at firsthand the techniques and practices developed in the national museums and laboratories at Washington. Unless the requested funds are restored the Institution must defer plans to offer assistance to other museums and to colleges and universities in every quarter of the United States.

The action of the House of Representatives would force the cancellation of national activities and restrict the Smithsonian to purely local services to those who happen to visit its buildings. It is certain that the millions from every city and State who come to its public displays do not consider the Smithsonian a purely local function. Such a view of the Institution would seem to be particularly unfortunate in the year of the celebration of the bicentennial of the birth of James Smithson, when representatives of hundreds of other museums and universities will gather in Washington in hopes of developing further cooperative efforts with the Smithsonian. The public is looking to national institutions for leadership in science and cultural affairs and it would represent a distinct loss to characterize the Smithsonian in any other way. Applications from 33 States are on hand from students and faculty members who wish to take part in this program in the coming year. The Nation has built the Smithsonian collections painstakingly and at great expense—often through donations from private individuals and corporations.

The purpose of visiting research appointments is to enable a modest number of graduate students and workers from kindred institutions to investigate the vast quantities of national collections not suitable for public view. Until this is done they will not be the property of the American people in the fullest possible sense. In light of the modest dimensions of the program and the excellence of the applications received from those who wish to participate in it, full restora-

tion of the \$500,000 item is requested.

Corregidor-Bataan Memorial Commission, Washington, D.C., April 1, 1965.

Senator Carl Hayden, Senate Office Building, Washington, D.C.

DEAR SENATOR HAYDEN: In reply to your letter of March 31, 1965, the follow-

ing amendments to H.R. 6767 are urgently recommended:

Page 41, line 16, change "\$25,000" to "\$35,000" as shown in the budget request. The restoration of the \$10,000 is necessary to provide for salary increases granted by the Congress, the employment of a GS-7 historical researcher needed to carry out planning required by Public Law 88-240, the authorization law; and to perform necessary travel.

Page 41, line 17, insert the following:

"VETERANS' ADMINISTRATION

"CONSTRUCTION, CORREGIDOR-BATAAN MEMORIAL

"For constructing a memorial on Corregidor Island, as authorized by the Act of August 5, 1958, as amended (36 U.S.C. 426), \$1,400,000, 'to remain available until expended'."

Page 41, renumber present line 17 as "line 22" and renumber all following lines

to conform.

The reasons for the restoration of the \$1,400,000 of construction funds are discussed in the attached memorandum.

Very sincerely yours.

EMMET O'NEAL, Chairman.

MEMORANDUM

House Report 245 on the Department of the Interior and Related Agencies appropriations bill shows on page 34 under "Corregidor-Bataan Memorial, construction" that no action was taken on the request for \$1.4 million for construction funds for fiscal year 1966. Additionally, funds for the Commission were cut from \$35,000 to \$25,000. The House completed action on this bill before a protest could be voiced.

The report states: "It is recommended that no action be taken on the appropriation of construction funds pending an opportunity of the Commission and the committee to review the nature and the cost of the final detailed plans and

specifications for this memorial."

The presentation before both the House and Senate Appropriations Subcommittee of the nature and cost of the plans for the memorial was exactly comparable in its scope and material to similar presentations which have been made by the American Battle Monuments Commission before the Commerce, Senate, and Related Agencies Appropriation Subcommittees. If any review were to be made at some future time by the Corregidor-Bataan Memorial Commission and the House Appropriation Subcommittee, it would necessarily be made on the same plans and data already presented to them.

Perhaps this postponement proposed by the House report resulted from the lack of clear understanding of the nomenclature used to describe architectural plans. Architectural engineers prepared two sets of plans and blueprints. The first set is referred to as the "preliminary design and related material" and the second set as the "working drawings and specifications," which are the con-

struction blueprints developed for the contractor.

The House Appropriations Subcommittee and the Senate Appropriations Subcommittee were shown the first set of plans which, in their entirety, represented much more material than is usually submitted by other departments in justifying requests for construction funds. In no event is a presentation ever made on the second set of plans known as the "working drawings and specifications" because their understanding requires technical knowledge in the civil engineering field. As noted above the only plans which would be reviewed a year from now by the House Appropriations Subcommittee would be the same set of plans shown to them at this year's hearings.

The effect of postponing the appropriation of the \$1.4 million requested will

result in four very serious disadvantages:

1. It sets back the present construction schedule by 1 year, thus estab-

lishing a new completion date of March 1968.

2. This new completion date in 1968 will disrupt the present plans of the Philippine National Shrines Commission for dedicatory ceremonies in March 1967.

3. It removes the Corregidor-Bataan Memorial Commission from any participation in the ceremonies in 1968 because by Public Law 88–240 the

Commission goes out of existence May 7, 1967.

4. By removing the Commission from any participation in the activities of the final year of construction, and the final dedication, there will be no U.S. agency to furnish policy guidance to the VA which acts only as a construction agency for the Commission. Neither will there be any U.S. agency to carry out the responsibilities of Public Law 298, 84th Congress; Public Law 85-556, and Public Law 88-240, vis-a-vis the Republic of the Philippines.

Public Law 88-240, which authorized the construction of the memorial, permits only the period July 7, 1964, to May 1967, a period of just 34 months to carry out all the necessary planning and construction phases for the memorial. Any delay beyond July 1, 1965, in the availability of funds will jeopardize the presently planned and orderly construction of the memorial, and its dedication in March 1967.

DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS

EDUCATION AND WELFARE SERVICES

(House hearings, pt. 1, pp. 721-760)

(Senate hearings, pp. 645)

Apropriation 1965	97, 365, 500
Estimate	106, 895, 000
House allowance	105, 761, 000
Restoration requested	1 204 000

(P. 5, line 17)

Amendment requested:

Page 5, line 17, strike out "\$105,761,000" and insert in lieu thereof "\$106,965,000", an increase of \$1,204,000 in the appropriation.







